

REMARKS

The Office Action mailed January 2, 2004 has been received and the Examiner's comments carefully reviewed. Claims 24 and 25 have been allowed. Applicants thank the Examiner for this notification. Claims 1-5, 8-9, 11, 16-19, 21-22, and 27 have been amended. Claim 28 has been added. No new subject matter has been added. Claims 10 and 23 have been cancelled. Claims 1-5, 7-9, 11-22 and 24-28 are currently pending. Applicants respectfully submit that the pending claims are in condition for allowance.

Interview Summary

Applicant's below signed representative conducted a telephone interview with Examiner Wang on February 27, 2004. The interview was directed toward amendments and clarifications of the claims to place the application in condition for allowance. The Examiner is thanked for his time and comments.

Rejections Under 35 U.S.C. §103

The Examiner rejected claims 1-5, 7-23 and 26 under 35 U.S.C. §103(a) as being unpatentable over Jerman et al. (U.S. Patent 6,134,207) in view of Roth et al. (PCT Pub. No. WO 02/21191). Applicants respectfully traverse this rejection. Applicants have, however, amended claims 1-5, 8-9, 11, 16-19, and 21-22, and cancelled claims 10 and 23 to advance this application to allowance.

I. Claims 1-5, 7-9 and 26

Claim 1 recites an optical switch having an input and four outputs. The switch includes a first actuator that moves a first mirror into a first extended position, a second extended position, and a retracted position. The switch also includes a second actuator that moves a second mirror into a first extended position, a second extended position, and a retracted position.

Claim 1 has been amended to incorporate the subject matter indicated as allowable in the Examiner's Statement of Reasons for Allowance on page 6 of the Office Action dated January 2,

2004. Accordingly, Applicants respectfully submit that independent claim 1, and dependent claims 2-5, 7-9 and 26 are patentable.

II. Claims 11-15

Claim 11 recites a method of switching an optical switch. The method includes controlling first and second actuators to position first and second mirrors to reflect and/or pass an optical beam therethrough to form at least four different optical outputs.

Neither Jerman nor Roth disclose a switch that takes a single input and provides four different outputs (a 1X4 configuration). In the Examiner interview, it was discussed that Jerman discloses only 1X2 configuration. That is, one mirror directs an input to a specific output, thus two mirrors can only direct the input to one of two specific outputs. It was also discussed that Roth discloses only 1X2 and 2X2 configurations. To clarify the recitation of the 1X4 configuration of claim 11, claim 11 now recites that the optical beam is reflected and/or passed to form at least four different optical outputs.

At least because neither Jerman nor Roth disclose a switch having two mirrors positionable to take a single input and provide four different outputs, Applicants respectfully submit that independent claim 11, and dependent claims 12-15 are patentable.

III. Claims 16-18

Claims 16 recites an optical switch including a switching component having first and second selectively positionable mirrors, wherein by changing positions of the first and second mirrors, an optical beam input is output to one of a plurality of different output waveguides. The plurality of different output waveguides includes first, second, third, and fourth output waveguides.

Neither Jerman nor Roth disclose a switch component of a switch that changes positions of first and second mirrors so that an optical beam input is output to one of a plurality of different output waveguides including first, second, third, and fourth output waveguides (a 1X4 configuration). Accordingly, Applicants respectfully submit that independent claim 16, and dependent claims 17 and 18 are patentable.

IV. Claims 19 and 20

Claim 19 recites an 1 X 4 optical switch having a pair of mirrors. The switch has an input and at least four different outputs. For at least similar reasons as discussed with regards to claim 11, Applicants respectfully submit that independent claim 19 and dependent claim 20 are patentable.

V. Claims 21-22

Claim 21 recites an optical switch having an input and four outputs. The switch includes a first actuator capable of moving a first mirror into a first extended position, a second extended position, and a retracted position. The switch also includes a second actuator that moves a second mirror into a first extended position, a second extended position, and a retracted position.

Claim 21 has been amended to incorporate the subject matter indicated as allowable in the Examiner's Statement of Reasons for Allowance on page 6 of the Office Action dated January 2, 2004. Accordingly, Applicants respectfully submit that independent claim 21, and dependent claim 22 are patentable.

Allowable Subject Matter

Claims 24-25 are allowed. The Examiner also objected to claim 27, but indicated that claim 27 would be allowable if rewritten in independent form incorporating all the limitations of the base claim and any intervening claims. Applicants thank the Examiner for this notification.

New claim 28 incorporates the subject matter of objected-to claim 27 and base claim 16. Applicants respectfully submit that claim 28 is in condition for allowance.

SUMMARY

It is respectfully submitted that each of the presently pending claims (claims 1-5, 7-9, 11-22 and 24-28) is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby.

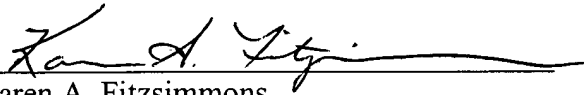
Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future.



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Respectfully submitted,

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